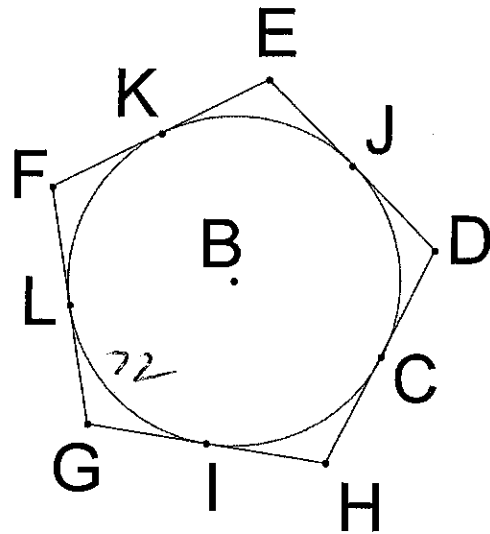


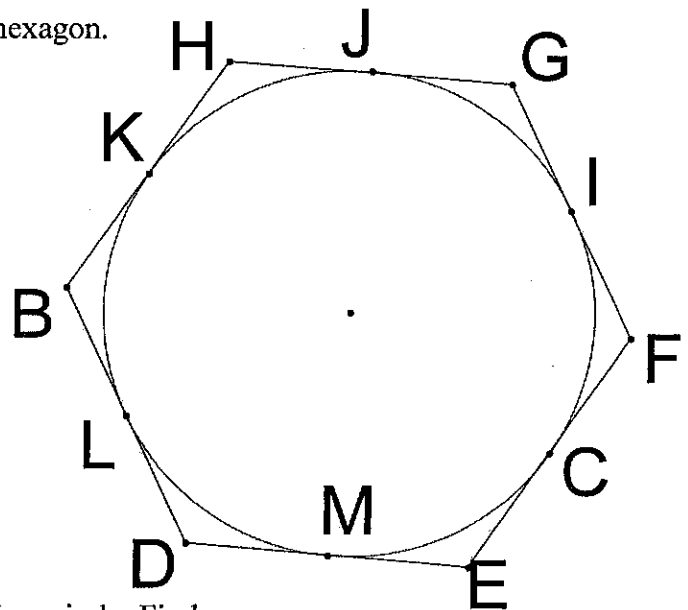
Name Key

Date _____

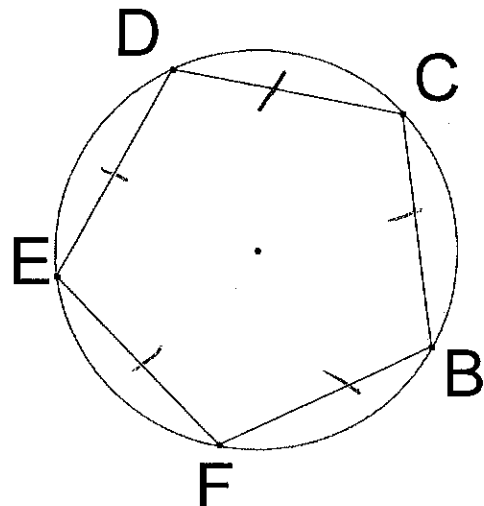
1. 72 A circle is inscribed in a regular pentagon. Find the measure of \widehat{LI} .



2. 60° A circle is inscribed in a regular hexagon. Find the measure of \widehat{KL} .



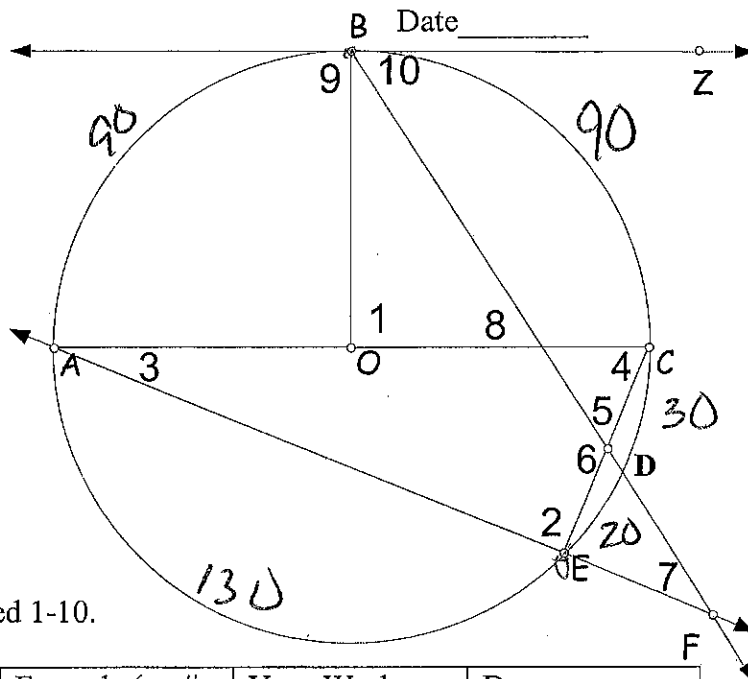
3. 72° A regular pentagon is inscribed in a circle. Find the measure of \widehat{BC} .



Name _____

Date _____

↔
Given BZ is tangent to circle O
AC is the diameter
BC = 90, CD = 30, and DE = 20



Find the measures of angles numbered 1-10.

	Type of Angle	Formula (no #s except $\frac{1}{2}$ should appear)	Your Work (Write in the values here.)	Degree measure of the angle.
$m\angle 1 =$	C	= arc		90
$m\angle 2 =$	INSC	$\frac{1}{2}$	$\frac{1}{2} 180$	90
$m\angle 3 =$	INSC	$\frac{1}{2}$ arc	$\frac{1}{2} 50$	25
$m\angle 4 =$	INSC	"	$\frac{1}{2} 130$	65
$m\angle 5 =$	inside	$\frac{1}{2}$ sum	$\frac{1}{2} (90 + 20)$	55
$m\angle 6 =$	inside	"	$\frac{1}{2} (220 + 30)$	125
$m\angle 7 =$	outs.	$\frac{1}{2}$ diff	$\frac{1}{2} (90 - 20)$	35
$m\angle 8 =$	inside	$\frac{1}{2}$ sum	$\frac{1}{2} (90 + 130)$	60
$m\angle 9 =$? radius tang + chord	$\frac{1}{2}$ arc \perp	90	90
$m\angle 10 =$	tang + chord	$\frac{1}{2}$ arc	$\frac{1}{2} (120)$	60

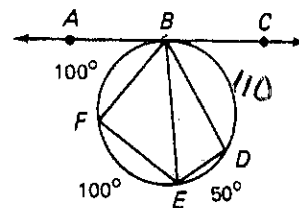
Name: _____

Date: _____

8-8 MORE ANGLES AND ARCS

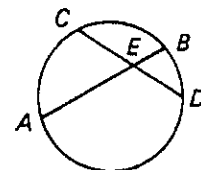
(Pages 378-382)

In the figure at the right, \overline{AC} is tangent to the circle at B. Find the measure of each of the following angles.



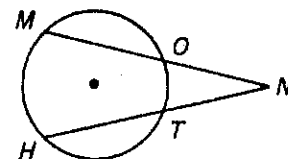
- | | | |
|----------------------------|-----------------------------|-----------------------------|
| 1. $\angle ABF$ <u>50</u> | 2. $\angle FBE$ <u>50</u> | 3. $\angle EBD$ <u>25</u> |
| 4. $\angle CBD$ <u>55</u> | 5. $\angle BFE$ <u>80</u> | 6. $\angle BED$ <u>55</u> |
| 7. $\angle BDE$ <u>100</u> | 8. $\angle ABE$ <u>150</u> | 9. $\angle FBD$ <u>75</u> |
| 10. $\angle CBE$ <u>80</u> | 11. $\angle ABD$ <u>125</u> | 12. $\angle FBC$ <u>130</u> |

In the figure at the right, \overline{AB} and \overline{CD} intersect at E. Complete each statement.



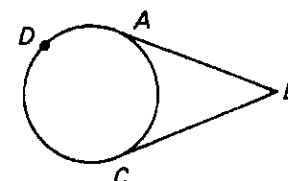
13. If $m\widehat{BD} = 70$ and $m\widehat{AC} = 90$, $m\angle AEC =$ 80.
14. If $m\widehat{BD} = 45$ and $m\widehat{AC} = 105$, $m\angle AEC =$ 75.
15. If $m\widehat{BD} = 68$ and $m\widehat{AC} = 84$, $m\angle DEB =$ 76.
16. If $m\widehat{BD} = 76$ and $m\widehat{AC} = 92$, $m\angle AED =$ 96. $180 - 84$
- ~~17. If $m\widehat{BD} = 60$, $m\widehat{AC} = 110$, and $m\widehat{AC} = 80$, $m\angle CEB =$ _____.~~
- ~~18. If $m\widehat{BD} = 54$, $m\widehat{BC} = 114$, and $m\widehat{AC} = 78$, $m\angle AED =$ _____.~~

In the figure at the right, secants NM and NH intersect at N. Complete each statement.



19. If $m\widehat{MH} = 80$, $m\widehat{OT} = 40$, $m\angle N =$ 20.
20. If $m\widehat{MH} = 74$, $m\widehat{OT} = 36$, $m\angle N =$ 19.
21. If $m\angle N = 80$, $m\widehat{MH} = 200$, $m\widehat{OT} =$ 40. $80 = \frac{1}{2}(200 - x)$
 $-40 = -x$
- ~~22. If $m\angle N = 21$, $m\widehat{OT} = 18$, $m\widehat{MH} =$ _____.~~

In the figure at the right, tangents BA and BC intersect at B. Complete each statement.



23. If $m\widehat{ADC} = 240$, $m\widehat{AC} =$ 120, and $m\angle B =$ 60.
24. If $m\widehat{AC} = 64$, $m\widehat{ADC} =$ 296, and $m\angle B =$ 116.

In the figure at the right, secant CA and tangent CD intersect at C. Complete each statement.



25. If $m\widehat{AD} = 214$ and $m\widehat{BD} = 68$, $m\angle C =$ 73. $\frac{146}{-68} = 78$
 278
 39
also possible
26. If $m\angle C = 60$, $m\widehat{BD} = 40$, $m\widehat{AD} =$ 160. $120 = x - 40$

